

# Patient education and guided self-management plans

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Asthma can be controlled effectively with the use of the appropriate drugs. By varying the level of treatment, the associated risks and unpleasantness of the disease can be minimized. In the majority of situations, the range of possible changes is reasonably straightforward and there is no reason why patients should not be trained to take these steps themselves. Self-management plans are an effective way to encourage patients to have more control over their disease.

## 1. What is a Self-management Plan?

All actions taken by the patient on his or her own behalf. These actions may replace medical advice or precede a consultation with a general practitioner or nurse. It should be a blend of educational material and therapeutic advice, using techniques that teach the patient the importance and relevance of symptoms and how to implement any changes in management.

## 2. Why are Self-management Plans Important?

Patients with asthma make decisions about their own treatment every day (1). Some patients elect not to take their treatment some days or to alter the dosage (2). Doctors and nurses only have the opportunity to influence patient decision during clinical contacts—i.e. every 30 or perhaps 90 days. It is unlikely that a piece of advice given in a consultation will be heeded every day for the following 30 or 90 days. Therefore, written information accessible to patients on a daily basis is essential.

The major problem in asthma care is translating the theory of good asthma care into everyday practice: self-management plans represent the best available option to do this (3,4).

## 3. Does Patient Education Work Without a Formal Plan?

No. The common finding of controlled trials on patient education is that verbal, written, audio and video educational programmes can increase patient's knowledge but not improve morbidity due to asthma (5–7).

Written educational materials have a role in helping patients accept their diagnosis and gain confidence in coping with its effects. Written materials should be available in asthma clinics and from mailing houses or charities as an aid to patient confidence, but not as a means to reduce morbidity.

## 4. Do Self-management Plans Work?

Probably. Controlled studies show evidence of benefit (reduced hospital admissions, need for courses of oral steroids and emergency nebulized bronchodilators) but there are questions over 'enthusiast bias' compromising outcomes (8,9). Patients who are perceived as being likely to benefit from plans tend to receive them and operate them (10,11). This explains the widespread clinical experience that they work, despite the doubts raised by analysis of controlled trials. (7). Plans that are individualized and provide feedback are relevant and are operated by motivated patients who understand that the objectives can be judged on the changes observed in the disease severity.

## 5. Who Should be Offered a Self-management Plan?

All patients who need to make decisions every day on taking therapy (Step 2 and above) should be offered a plan. Studies have not differentiated patients by age, diagnostic ability or intelligence, and thus there are no grounds for not offering a plan.

## 6. Who Should Issue Self-management Plans?

A health-care professional known and trusted by the patient, who is accessible directly by telephone,

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and who has arranged to review the patient personally. Practice nurses with the time, enthusiasm and accessibility to patients are the ideal choice (11). An expiry date on a plan is a way to ensure it is not used injudiciously for years without clinical review.

### 7. What Should a Self-management Plan Contain?

The most popular plans are three-step colour coded and have advice on:

- (1) What to do if well [green: no cough, wheeze and not breathless and peak flow rate (PFR)  $\geq 80\%$  of best =>take preventer inhaler regularly and reliever inhaler if any symptom develops];
- (2) What to do if any symptoms (amber: any cough or wheeze or  $\geq 50\%$  PFR  $\leq 80\%$  =>double the dose of preventer and use reliever every 4 h); and
- (3) What to do if ill (red: breathless or not responding to reliever or PFR  $< 50\%$  =>start oral steroid course immediately, obtain urgent medical help).

Plans need to be tailored to individual patients and their local health-care circumstances, e.g. call 999 or attend hospital can be negotiated when plans are issued (12,13).

'Brittle asthmatics' should have their plans tailored to early aggressive intervention, possibly by omitting an amber zone entirely.

### 8. Should Self-management Plans be Based on PFR?

Studies show that self-management plans work equally well with or without PFR (11,12). It follows that debate about whether to set PFR intervention levels at 80%, 75% or 70% of best or of predicted are academic. Peak flow rate measurements in self-management plans should be regarded as an optional aid to helping patients recognize the importance of worsening of symptoms (13-15).

### 9. Are Self-management Plans Dangerous?

There is no evidence that they do harm although, in theory, they could lead to a false sense of security or complacency. Whatever physical or psychological factor makes a patient a 'brittle asthmatic' may make their response to a self-management plan 'brittle'.

### 10. British Thoracic Society and Self-management Plans?

British Thoracic Society (BTS) Guidelines should promote their use in all patients at Step 2 or above.

The BTS should offer an approval or endorsement service to plan makers and distributors. There is a danger of 'rough and ready plans' being promoted at the expense of well-researched and designed versions. The BTS as an organization and the BTS Guidelines as a reference point stand to gain considerably by offering to endorse (or not endorse) plans intended for widespread distribution.

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